

Serial No.: 10/706,676

RECEIVED
CENTRAL FAX CENTER

JAN 04 2007

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings of claims in the present application.

What Is Claimed Is:1. (currently amended) A storage system, comprising:

one or more data storage logical units (LUs) comprising physical media, the one or more LUs being adapted to receive commands, and responsive to the commands to store and recall data; and

a plurality of ports, each port being adapted to maintain a plurality of an LU command queue queues, for each of the plurality of LU command queues corresponding to a respective one of the LUs, such that upon receiving a command directed to one of the LUs, the port places the received command in the respective LU command queue, converts the received command to one or more converted commands at least some of which are directed to the physical media of the one of the LUs, and conveys the at least some converted commands to the physical media in an order determined by the respective LU command queue.

2. (original) The storage system according to claim 1,

wherein the command is comprised in one of a plurality of strings of commands each directed to a respective one of the ports, and

wherein each of the ports is coupled to receive the respective string of commands directed thereto.

Serial No.: 10/706,676

3. (previously presented) The storage system according to claim 1,

wherein the plurality of ports comprises a first port and a second port,

wherein the first port conveys a first string of the at least some converted commands in a first order to the physical media,

wherein the second port conveys a second string of the at least some converted commands in a second order to the physical media, and

wherein the physical media is adapted to receive the first string and to store and recall the data in response to the first order, and to receive the second string and to store and recall the data in response to the second order.

4. (original) The storage system according to claim 1, wherein the command comprises a request according to a small computer system interface (SCSI) protocol, and wherein the storage system is operative according to the SCSI protocol.

5. (original) The storage system according to claim 1, wherein each of the ports comprises a respective central processing unit (CPU) which operates each of the ports substantially independently.

6. (original) The storage system according to claim 1, wherein the command is comprised in one of one or more strings of commands, each command of each string being directed via one of the ports to a respective one of the LUs, and comprising a coupling which:

receives the commands comprised in the one or more strings,

sorts the commands according to the ports via which the commands are directed, and

Serial No.: 10/706,676

conveys the commands to the ports to which the commands are directed.

7. (previously presented) The storage system according to claim 1,

wherein the received command comprises a write command to store a data string from a host to the physical media,

wherein the one or more converted commands comprise instructions to the host to convey the data string to the physical media via the port, and

wherein the port is adapted to convey the instructions to the host.

8. (original) The storage system according to claim 1,

wherein the received command comprises a read command from a host to read a data string from the physical media, and

wherein the one or more converted commands comprise instructions to convey the data string via the port to the host.

9. (original) The storage system according to claim 1,

wherein the physical media comprise the data, and

wherein the port is adapted to track changes of location of the data within the physical media.

10. (currently amended) A method for processing data, comprising:

storing and recalling data in one or more data storage logical units (LUs), comprising physical media, responsively to commands; and

Serial No.: 10/706,676

configuring in each of a plurality of ports a plurality of an LU command queue ~~queues~~, for each of the plurality of LU command queues corresponding to a respective one of the LUs, such that upon receiving a command directed to one of the LUs, the port places the received command in the respective LU command queue, converts the received command to one or more converted commands at least some of which are directed to the physical media of the one of the LUs, and conveys the at least some converted commands to the physical media in an order determined by the respective LU command queue.

11. (previously presented) The method according to claim 10,

wherein the command is comprised in one of a plurality of strings of commands each directed to a respective one of the ports, and

further comprising coupling each of the ports to receive the respective string of commands directed thereto.

12. (previously presented) The method according to claim 10, wherein the plurality of ports comprises a first port and a second port, the method further comprising:

conveying from the first port a first string of the at least some converted commands in a first order to the physical media; and

conveying from the second port a second string of the at least some converted commands in a second order to the physical media;

wherein storing and recalling the data comprises, at the physical media:

receiving the first string and storing and recalling the data in response to the first order;

and

Serial No.: 10/706,676

receiving the second string and storing and recalling the data in response to the second order.

13. (original) The method according to claim 10,

wherein the command comprises a request according to a small computer system interface (SCSI) protocol, and

wherein the plurality of ports are comprised in a storage system operative according to the SCSI protocol.

14. (original) The method according to claim 10, wherein each of the plurality of ports operates substantially independently of other ports comprised in the plurality.

15. (original) The method according to claim 10, wherein the command is comprised in one of one or more strings of commands, each command of each string being directed via one of the ports to a respective one of the LUS, and comprising:

receiving the commands comprised in the one or more strings;

sorting the commands according to the ports via which the commands are directed; and

conveying the commands to the ports to which the commands are directed.

16. (previously presented) The method according to claim 10,

wherein the received command comprises a write command to store a data string from a host to the physical media,

Serial No.: 10/706,676

wherein the one or more converted commands comprise instructions to the host to convey the data string to the physical media via the port, and

wherein the port is adapted to convey the instructions to the host.

17. (original) The method according to claim 10,

wherein the received command comprises a read command from a host to read a data string from the physical media, and

wherein the one or more converted commands comprise instructions to convey the data string via the port to the host.

18. (original) The method according to claim 10, wherein the physical media comprise the data, and comprising tracking at the port changes of location of the data within the physical media.

19. (previously presented) The storage system according to claim 1, wherein each port uses at least one table to convert logical data in the received command to data suitable for the respective physical media to which the command is directed.

20. (previously presented) The storage system according to claim 1, wherein each port uses one or more functions to convert logical data in the received command to the data suitable for the respective physical media.

21. (new) The storage system according to claim 1, wherein at least one of the converted commands directed to the physical media is first sent to a fast access time memory acting as a

Serial No.: 10/706,676

buffer, said fast access time memory being adapted to redirect the converted command to the respective physical media.

22. (new) The method according to claim 10, wherein at least one of the converted commands directed to the physical media is first sent to a fast access time memory acting as a buffer, said fast access time memory being adapted to redirect the converted command to the respective physical media.

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☒ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.